SSW Installation and Database Access

HESSI Data Analysis Software
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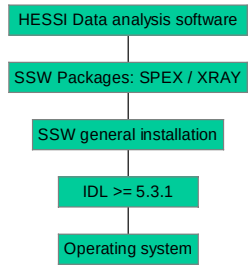
SSW Installation

- The data analysis software needs several “layers” to operate:



SSW Installation

- Assume IDL 5.3.1 or higher is installed
- Depends whether you have a Windows operating system or a Unix system
- One starting point:
  - `hessi.ssl.berkeley.edu/software`
  - Windows:
    - SSW Windows installation instructions (M.Berg): `hesperia.gsfc.nasa.gov/hessi/solar_install/installation.html`
  - For Unix/Linux: `www.lmsal.com/solarsoft`
- Test: `IDL> hessi_image`
- Problems may not be in the hessi software
- Please report problems

Data access

- All data will be available on-line
  - Easy maintenance of mirror sites
  - In some cases makes access fully transparent
  - Each data file has an individual URL address
- Try to keep access as easy as possible
- Try to implement several data access mechanisms to accommodate
  - Hardware/network configurations
  - Personal preferences
- Primary public data archive site: GSFC
  hesperia.gsfc.nasa.gov
- Backup data archive: UC Berkeley
  hessi.ssl.berkeley.edu

Data access: situations

- Local data archive available:
  - No actions necessary
  - Some institutions covered: UCB, GSFC, MSSL(?)
- Fast network connection available (no modem):
  - No actions necessary, but good to download data files before analysis
  - Covers many academic institutions
- Slow network connection available (modem):
  - Need to be careful about data selection, or transfer first the data on CDs, or wait.

Local data archive available

- Data access is fully transparent
- Set the `HSI_DATA_ARCHIVE` environment variable to the location of the archive, e.g.
  - `/disks/soleil/data/test_data`
- That’s it!
- In IDL:

```
o = hsi_lightcurve()
o->Plot OBS_TIME_INTERVAL=['2000/09/01', '2000/09/02'],
  /LTC_FAST, /LTC_TIME_RES = 60
```

Fast network connection available

- Data access may be fully transparent
- Set the `HSI_DATA_ARCHIVE` environment variable to the location of the archive, e.g.
  - hessi.ssl.berkeley.edu/test_data
- The software will automatically download the files
- Not operational yet, but all components are available
- For large observation time intervals, better to download in advance
  - ftp option: files sorted chronologically
    - ftp://hessi.ssl.berkeley.edu/test_data
  - http options:
    - direct: http://hessi.ssl.berkeley.edu/data/test_data
    - query form: http://hessi.ssl.berkeley.edu/data/

Web query form

- Now gives only a list of files
  - Boring to click on each file to download
- Will pack the data into a zip file (soon)
- The query form will read dates intelligently, e.g. “today”, “yesterday”, etc.
- The query form will also include quicklook data
- The query form will also allow more elaborate queries
- Large potential of extensions.

Slow network connection available

- Need to limit the observation time interval to a minimum
- Possibility of transfering parts of data files
- Need more investigations
- One way around: CDs/DVDs.